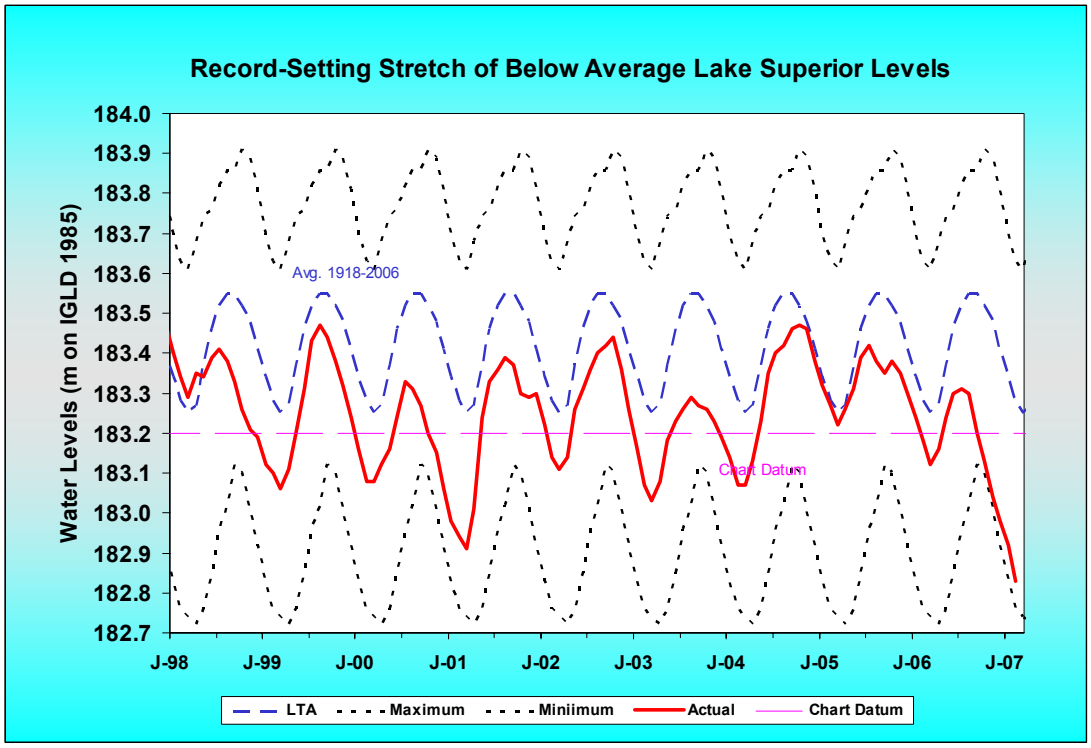
International Lake Superior Board of Control

Semi-Annual Progress Report to the International Joint Commission

Covering the period October 4, 2006 to March 28, 2007



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International Lake Superior Board of Control

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March 28, 2006

International Joint Commission
Washington, D.C.
Ottawa, Ontario

Commissioners:

This semi-annual report covers the Board's activities from October 4, 2006 to March 28, 2007.

1. Highlights

During the past six months, the water levels of lakes Superior and Michigan-Huron remained below average. Lake Superior levels were the lowest they've been since the record lows of 1925-26. Except for November and March, Lakes Michigan-Huron levels were above last year's.

The Lake Superior outflows were as specified by Regulation Plan 1977-A. Since October, the monthly outflows from the lake have been between 68% and 79% of average. The Lake Superior net basin water supply was well below average while that to the Lakes Michigan-Huron basin was above average over the October 2006 through February 2007 period.

Due to the low levels, ponding by the hydropower entities was restricted on weekends and holidays from October 2006 through January 15, 2007, the closing date for Soo Locks. Ponding was also restricted on the March 25, 2007 opening date. No concerns related to peaking and ponding were reported to the Board during the period.

As usual, the U.S. Locks closed on January 15, 2007 and re-opened on March 25, 2007. The Canadian lock closed October 15, 2006 and will re-open in mid-May 2007.

2. Monitoring of Hydrologic Conditions

The Board continuously monitors the water levels of lakes Superior and Michigan-Huron, and the water levels and flows in the St. Marys River. The Regulation Representatives' monthly reports to the Board provide hydrologic assessments and recommendations on the regulation of outflows from Lake Superior. These reports indicate the amount of water available for hydropower

purposes, after the requirements for domestic use, navigation, and the fishery (St. Marys Rapids) were met.

Tables 1 and 2 list the recent monthly water levels, net basin supplies, and outflows for lakes Superior and Michigan-Huron, respectively. Figure 1 compares the monthly water levels for this period to long-term averages and extremes. Figure 2 shows the monthly precipitation over the lakes Superior and Michigan-Huron basins. Figure 3 shows the monthly net basin supplies for the basins.

Precipitation over the Lake Superior basin was below average from October 2006 through February 2007 at 67% of average for the period. Provisional data indicate that a new record low mean value was set in January, when only about 19 mm (0.75 in.) of precipitation fell. The net basin supplies, which are the net effect of precipitation, evaporation and runoff to the lake, were below average throughout the period. The October through February sequence of net basin supplies to Lake Superior would be expected to be exceeded more than 98% of the time.

Lake Superior's water levels have been below chart datum (183.2 m or 601.1 ft) since September 14, 2006. Lake levels between October and February have ranged from 39 cm (15 inches) to 45 cm (18 inches) below long-term average. On March 28, 2007, its level was 182.79 m (599.70 ft), which was 45 cm (17.7 inches) below average and 30 cm (11.8 inches) lower than a year ago. The Lake Superior levels in the period were the lowest that have been since the record setting lows of 1925-26. The level of Lake Superior has been consistently below average since April 1998, which is the longest sustained period of below average monthly levels in the 1918-2005 period of record.

Snow survey flights to determine the snow pack on the Lake Superior basin were made March 7 - 8, 2007. Based on snow survey data the snow water equivalent (SWE) was 50% of average, much lower than last year's 141% of average. On average, the majority of the Lake Superior Basin has 2 to 6 inches of SWE with slightly higher amounts in the snow belt areas. Note that there is limited correlation between SWE and lake level rise.

Precipitation over the Lakes Michigan-Huron basin was above average in October and December, but below average in November, January and February, and was 107% of average for the period. On the whole, the October through February sequence of net basin supplies to Lakes Michigan-Huron were above average and would be expected to be exceeded more than 21% of the time.

Monthly mean Lakes Michigan-Huron levels ranged from about 32 cm (13 inches) to 47 cm (19 inches) below long-term averages. Water levels have been below chart datum (176.0 m or 577.5 ft.) since October 12, 2006, except for several days in January. On March 28, 2007 the level of Lakes Michigan-Huron was at elevation 175.95 m (577.26 feet), 40 cm (15.7 inches) below average and 1 cm (0.4 inches) higher than a year ago. The level of Lakes Michigan-Huron has been below average since January 1999, the second longest sustained period of below-average monthly levels on record.

This period of sustained low water levels and outflows is having significant economic impacts on stakeholders in the upper Great Lakes region. The Board has been apprised of detrimental effects to navigation, hydropower, tourism, industrial and shoreline interests, and anticipates more

widespread concerns should these conditions continue and perhaps worsen.

3. Regulation of the Outflow from Lake Superior

The outflows of Lake Superior were as specified by the Regulation Plan 1977-A from October through March. Lake Superior outflows were 73% of average during the October through February period ranging from 1,380 m^3/s to 1,570 m^3/s. (48,700 cfs to 55,400 cfs). Outflows were limited by Criterion (c) in January, February and March, 2007, and were otherwise restricted to the normal minimum outflow prescribed by Plan 1977-A from October to December, 2006 (i.e. 1,560 m^3/s or 55,000 cfs).

The gate setting at the Compensating Works supplying the main portion of the St. Marys Rapids remained set at an equivalent one-half gate open, four gates set at 25 cm (10 inches), for the past six months.

Numerous scheduled and unexpected flow reductions occurred at the three hydropower plants to facilitate maintenance and make repairs. Details are provided in Section 6 below. All flow reductions were easily offset within each month. When units were taken off-line, water levels at U.S. Slip gauge fell but quickly rose again as idled units were brought back on-line. No problems related to water levels were reported as a result of these variations. No ships were reported delayed due to the flow variations.

4. Governing Conditions During the Reporting Period

The monthly mean levels of Lake Superior ranged between 182.83 m and 183.13 m (599.84 ft. and 600.82 ft.), within the limits of 182.76 m and 183.86 m (599.6 ft. and 603.2 ft.) specified in the Commission's Orders of Approval.

The daily mean water levels in the lower St. Marys River at the U.S. Slip Gauge downstream of the U.S. Lock varied between elevation 175.96 m and 176.41 m (577.30 ft. and 578.77 ft.). Thus, the requirement for maintaining the level below 177.94 m (583.8 ft.) was satisfied. The daily mean U.S. Slip gauge level was below chart datum for 175 days of the 176 days in the reporting period.

5. Repairs, Inspection and Flow Calibration at the Compensating Works

Ongoing routine maintenance and inspections of the Compensating Works were undertaken in the past six months. The structure is generally in good condition. On the U.S. side ESELCO completed their annual inspection and lubrication of the Compensating Works Gates 9 through 16 on October 4, 2006. New signs to replace existing signs on the U.S. side (Gates 9 – 16) have been received but need to be installed. Some of the bearings and bolt nuts were found to need some touch up painting, which will be done in the spring. Brush will be cut down this summer. Brookfield Power's major repainting and refurbishment program scheduled for 2007 to 2010 is set

to commence this year. Canadian and U.S. work plans were included as Annex A in the spring 2006 report.

Measurements were made in August 2005 and June 2006 at the Compensating Works as part of a long-term program to verify the 1931 discharge equations for standard gate settings. Measured flows for 1-3 gates open were generally within 5% less than the computed flows. Measured flows for 4-7 gates open were generally within 5% greater that the computed flows. Measurements for ½ gate open and the ½ gate equivalency (4 gates, each open 10 inches) did not agree nearly as well in 2005. This prompted a more detailed analysis in 2006. Measurements were conducted at 8, 9, 10 and 11 inches open to see if one of these settings might agree with the ½ gate open flow better. Measurements at 8 inches open agreed with the ½ gate equation within +/- 5%. Each successive inch the gates were open deviated farther from the computed flow such that 10 and 11 inches open were 12-26% higher than computed. It is recommended to move the gates to an 8 inch opening and conduct another set of verification measurements at incremental settings. Measurements at further gate openings would be advisable to collect a set of verification data representative of the full range of flows. Due to current water level conditions, this may not be possible at this time. It is recommended to wait until conditions would allow the opening of multiple gates for further verification.

6. Repairs, Maintenance, and Flow Determination at the Hydropower Facilities

a. U.S. Government Hydropower Plant

Units 1, 2, 3, 3A and 10 were down for a total of 171.25 hours from September 17 through December 13 due to pit sump pump failures, bearing oil filtering, area power grid blackouts and ESELCO requests for power reductions to allow maintenance of their distribution system. Units were also taken off line for short periods for normal inspection and maintenance. The under-reporting adjustment of 9% continues to be applied while the inconsistency between measured and reported flows is investigated.

b. Brookfield Power Clergue Plant

Brookfield Power's Clergue Plant was off line on October 28 and 29 for approximately 40 hours to allow divers to conduct a cable inspection in their power canal. Unit C1 was out of service from November 5 to 14 to replace a transformer. All units were off line on December 16 for nine hours to facilitate repairs to the ice boom in the power canal. Unit C3 and Unit C2 were out of service from February 10 and February 11, respectively, until February 14, for approximately 82 and 60 hours, respectively, due to a substation malfunction. On February 23, Unit C2 was out of service and flows were reduced through the remaining units for seven hours to facilitate a transmission line repair. Unit C1 was removed from service for a scheduled outage on March 19 and is expected to return to service on April 26. Shortly thereafter, Unit C3 is scheduled to be removed from service for maintenance for approximately one month.

c. Edison Sault Electric Company

Routine maintenance was conducted during the reporting period. From September 18 through October 28, 2006 ESELCO reduced its flow during the day to allow divers to work on the final phase of the power canal north bank rebuilding above the head gate structure at the head of ESELCO's power canal. ESELCO completely met its monthly allocations by running at higher flows during the evening and night-time hours. The plant is in good operating condition. During the cold weather in February and into March ESELCO used up to 113.2 m^3/s (4,000 cfs) of the U.S. Government hydroplant's allocation in addition to its allocation in order to prevent its forebay from freezing.

7. Flow Verification Measurements

a. U.S. Government Hydropower Plant at the Soo Area Office

The 9% adjustment to the flows to compensate for under reporting continues. Measurements were made in June 2005 and June 2006 at the U.S. Government Hydropower Plant also as part of a program to verify discharges reported by the plant. A very detailed measurement program had been designed to investigate possible leakage through dikes around the plant and to determine if any specific units were more problematic than others. Measured flows for the Unit 10 plant agreed extremely well with plant reports. Measured flows for the main plant continue to be significantly higher than the plant reports. Measured data showed no correlation to a problem with any one specific unit. Measured data at multiple cross-sections in the power canal head and tailraces also showed no areas where additional water seemed to be leaving or entering the system. Data measured at a new cross-section, which measured the total inflow to Unit 10 and the main plant also compared very favorably with cross-sections measuring the total discharge of the two plants. The conclusion is that the measurements are very consistent and accurately represent the flow in the power canal. This leads to a problem with the plant reporting software. Soo Area Office personnel have reviewed the operating software and are satisfied that the software is operating correctly and computing the flows according to the appropriate procedures. This leaves the assumption that problems exist with the calibration information contained within the software. The Corps plans to contract with the engineering firm that calibrated the plant to have them review the process in light of the detailed field data. This should lead to adjustments in the operating software to compute discharges in better agreement with the measured flows. Once this has been completed, another set of verification measurements should be made.

b. Brookfield Power

Measurements were made in June 2005 and June 2006 at the Brookfield Hydropower Plant as part of a program to verify discharges reported by the plant. All measurements in 2005 were made at, or near the plant capacity discharge and they agreed very well with reported flows. Measurements were made at a larger range of flows in 2006 to be sure the plant reports were correct over the full range of plant operations. All measured data in 2006, over

a larger range of flows, agreed well with reported flows. No further measurements are recommended until the next 5-year cycle, scheduled for 2010.

c. Edison Sault Electric Company

Previous measurements indicate that Edison Sault Electric Company is operating within an acceptable +/- 5% of measured flows. No further measurements are recommended until the next cycle mandated by the Board in 2010.

8. Water Usage in the St. Marys River

Table 3 (Table 4 in cubic feet per second) lists the distribution of outflows from Lake Superior for January 2006 through February 2007. Water uses are divided into four categories: domestic, navigation, fishery, and hydropower. According to the 1979 Supplementary Order, after the first three water requirements are satisfied, the remaining outflow is shared equally between the U.S. and Canada for hydropower purposes. Any remainder, beyond the flow capacity of the hydropower plants, is discharged through the Compensating Works into the St. Marys Rapids.

As shown in the tables, the monthly mean amounts of water used for domestic and industrial purposes ranged from 10 to 11 m^3/s (353 to 388 cfs), which is roughly 0.7% of the total monthly outflow.

The flow through the U.S. and Canadian locks depends on traffic volume and varied from 5 to 12 m^3/s (177 to 424 cfs). As a percentage of the total river flow, water allocated for navigation varied seasonally from as little as 0.3% (when the locks were closed for the winter) to about 0.8% of the total river flow in the busiest part of the navigation season.

The U.S. locks closed on January 15, 2007, as scheduled and re-opened on March 25, 2007. The Canadian lock closed for the season on October 15, 2006 and is expected to reopen in mid-May 2007.

In accordance with the Commission's Orders to fulfill the fishery needs in the main rapids, a minimum gate setting of one-half gate open is required at all times at the Compensating Works. A setting equivalent to one-half gate open for the main rapids is maintained by having four gates partially open to supply the same quantity of water as one gate half open. This spreads the flow more evenly across the main rapids, and is thought to reduce potential damage from ice floes impacting the gate in the winter. In addition, a flow of at least 15 m^3/s (530 cfs) is required in the Fishery Remedial Works (through Gate 1). The flow in the St. Marys Rapids, including that through the Fishery Remedial Works, ranged from 97 to 100 m^3/s (3430 to 3530 cfs) between October 2006 and February 2007.

The hydropower plants used an average of 1,444 m^3/s (51,000 cfs) from October 2006 through February 2007 for electric power production. The allocation for this period averaged 1,410 m^3/s (49,800 cfs). Usages at each plant are shown in Tables 3 and 4.

9. Long Lac and Ogoki Diversions

Ontario Power Generation (OPG) continued to provide the Board with information on the operations of the Long Lac and Ogoki Diversions. The Ogoki Diversion into Lake Nipigon (which flows into Lake Superior) averaged 48.0 m^3/s (1,700 cfs) and the Long Lac Diversion averaged 18.9 m^3/s (670 cfs) over the reporting period. Combined, these diversions were about 49 percent of average for the period 1944-2006. New record low outflows from the Long Lac Diversion were established in September and October.

During the reporting period, no water was spilled northward into the Ogoki River or from Long Lake.

10. Peaking and Ponding Operations at Hydropower Plants

During the reporting period, the power entities undertook peaking and ponding operations under the supervision of the Board. U.S. Slip weekend minimum levels, which are those affected by ponding operations, were expected to drop below chart datum on weekends and holidays in October 2006 through March 2007. As a result, the hydropower companies were required to suspend ponding operations during the October 2006 through January 15, 2007 period. From January 16th through March 24, levels were of no concern to navigation, and ponding was permitted. Ponding was also suspended on March 25, the day the Soo Locks re-opened.

Figures 4a through 4e compare the hourly Lake Superior outflows and the hourly levels at U.S. Slip on the lower St. Marys River.

No concerns related to peaking and ponding were reported to the Board during the period.

The Commission's March 17, 2006 letter to the Board and hydropower entities approved continued peaking and ponding operations for an indefinite period under the Board's supervision. The Board provides summaries of peaking and ponding activities in its semi-annual reports to the Commission. Peaking and ponding guidelines are to be examined on a five year basis by the Board starting with the last year of the International Upper Great Lakes Study, or 2010, whichever comes first.

With water levels and St. Marys river flows below average, the fluctuations have been a concern for commercial navigation users in recent years. As previously reported, a navigation interest proposed that the threshold level for peaking and ponding decisions could be lowered a foot (30 cm) following completion of dredging in the lower St. Marys River. A letter was mailed October 28, 2004 to key affected interests and posted on the IJC web site seeking public comment on changing the threshold. The Board received a letter from the Michigan Department of Natural Resources requesting additional research into any the possible effects on the aquatic environment. In its January 23, 2006 follow-up report to the IJC on peaking and ponding, the Board noted receipt of this letter and subsequent related correspondence. The Board recommended that, pending resolution of environmental issues

raised, the issue of setting a new peaking and ponding decision threshold level be deferred.

At its October 3, 2006 meeting, the Board revisited the issue regarding lowering of the threshold level. The Board agreed to seek a report from a recognized scientific expert on the significance of the effects of such related issues on the aquatic environment. Board staff approached Dr. Mark Bain of Cornell University, who has recent experience defining regulation strategies at a hydropower plant to limit potential impacts on fish. Initial discussions with Dr. Bain suggest that shallow-water fish species are typically impacted most, and that impacts on such a large river would be expected to be less, but could be harder to detect as well. Channel shape and substrate matter can play significant roles, especially if shoreline areas tend to be dewatered when flows vary. The Board will meet with Dr. Bain to receive his report and discuss his findings.

To provide timely information to the users, the Corps continued distribution of monthly notices on expected Lake Superior outflows, and a schedule of flow variations at the hydropower plants during the shipping season.

11. Annual Meeting with the Public and Public Information

The Board will hold its 2007 annual meeting with the public during the summer in Sault Ste. Marie, Michigan. The Board recognizes the need to coordinate its public communication activities with the International Upper Great Lakes Study Board to avoid possible confusion of the roles and responsibilities of the two Boards by stakeholders.

The Board continues to issue, at the beginning of each month, news releases informing the public about Lake Superior regulation and water level conditions. The Board provides monthly media releases and hydrologic update information to the Commission to maintain a Board web site. Content includes information on Board members and responsibilities as well as news releases, semi-annual reports, meeting minutes and hydrologic data summaries. In addition, in support of the Board and the Commission, the Detroit District Corps of Engineers maintains additional technical information on its own Board Web site.

12. Sea Lamprey Control

The Great Lakes Fishery Commission (GLFC) and the Sea Lamprey Control Centre (SLCC) did not request flow adjustments or other assistance from the Board to carry out its sea lamprey control program during the last six months. The Board remains available to assist the GLFC and SLCC on request.

The Board is keeping the GLFC, SLCC, US Fish and Wildlife Service (USFWS) and Michigan Department of Natural Resources (MDNR) and others advised of expected upcoming regulation decisions regarding gate and flow changes through its news releases and postings on its Web page. An effort will be made to work with these agencies in the event that future gate and flow changes are expected to adversely affect their sea lamprey control

programs.

The Edison Sault Electric company, the Corps Soo Area Office and Brookfield Power hydropower plants continue to cooperate with the USFWS, GLFC and SLCC in its sea lamprey trapping program.

13. Related Items of Interest

a: Great Lakes / St. Lawrence Seaway Study

Work continues on the *Great Lakes / St Lawrence Seaway Study*. This bi-national Study, being co-managed by Transport Canada and the U.S. Army Corps of Engineers and being overseen by a Steering Committee consisting of several U.S. and Canadian agencies, is looking at the engineering aspects and cost of maintaining the present navigation system over the next 50 years. The Study is also looking at the implication this has on the region's economy and environment. No expansion of locks or connecting channel size is being considered. Engineering investigations of the locks on the system have been completed, and the analysis of the infrastructure has resulted in final criticality rankings of various components in order to focus more detailed reliability analyses on the most critical components.

FY07 funding is being used to complete integration of the engineering/economic model output, develop future operation and maintenance scenarios and costs, and assess the environmental implications associated with these scenarios. These scenarios will ultimately be evaluated to determine the most cost effective plan to ensure the continued safe, reliable, and environmentally sustainable operation of the navigation system for the next fifty years. A final bi-national summary report will be completed by spring 2007, the results of which will be shared with stakeholders throughout the region. FY08 funding, when available, would be used to complete the Corps of Engineers' supplemental reconnaissance report which will build upon the bi-national system assessment to revisit the various navigation improvements identified in the original reconnaissance report. A final determination will be made as to the Federal interest in proceeding with any feasibility efforts, including the formalization of the scope and cost sharing requirements of any follow-on efforts.

b. Lock Replacement at Sault Ste. Marie, Michigan

A new "Poe sized" lock is proposed to replace the existing Davis and Sabin Locks at the Soo Locks complex at Sault Ste. Marie, MI. The purpose of this project is to provide for more efficient movement of waterborne commerce. The Assistant Secretary of the Army for Civil Works (ASA (CW)) has reviewed the Limited Re-evaluation Report (LRR). The revised LRR that includes responses to the ASA(CW) comments was forwarded to Headquarters USACE on September 30, 2005. On August 30, 2006 the revised LRR along with letters of support from the Departments of Transportation and Homeland Security were provided to the ASA (CW) for approval. Upon approval of the LRR, efforts for execution of the Project Cooperation Agreement (PCA) with the non-Federal sponsor, the Great Lakes Commission

(GLC) will be reinitiated. Detailed design of the channel deepening, guide walls and lock chamber have continued while awaiting LRR approval. However, due to limited funding in FY07 these activities are now on hold. The recently released FY08 President's Budget does not contain funding for this project.

14. Board Membership and Meetings

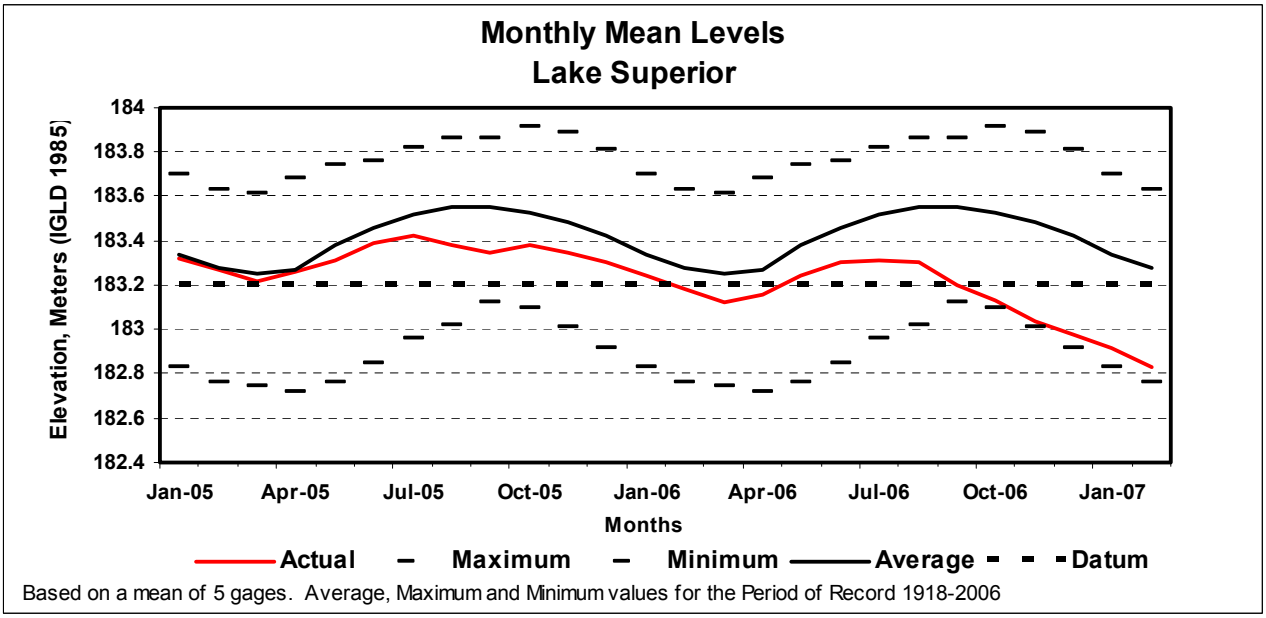
There was no change in the Board membership during the reporting period.

The Board held a meeting on March 28, 2007 in Detroit, Michigan with the U.S and Canadian members in attendance. LTC William Leady represented the U.S. member.

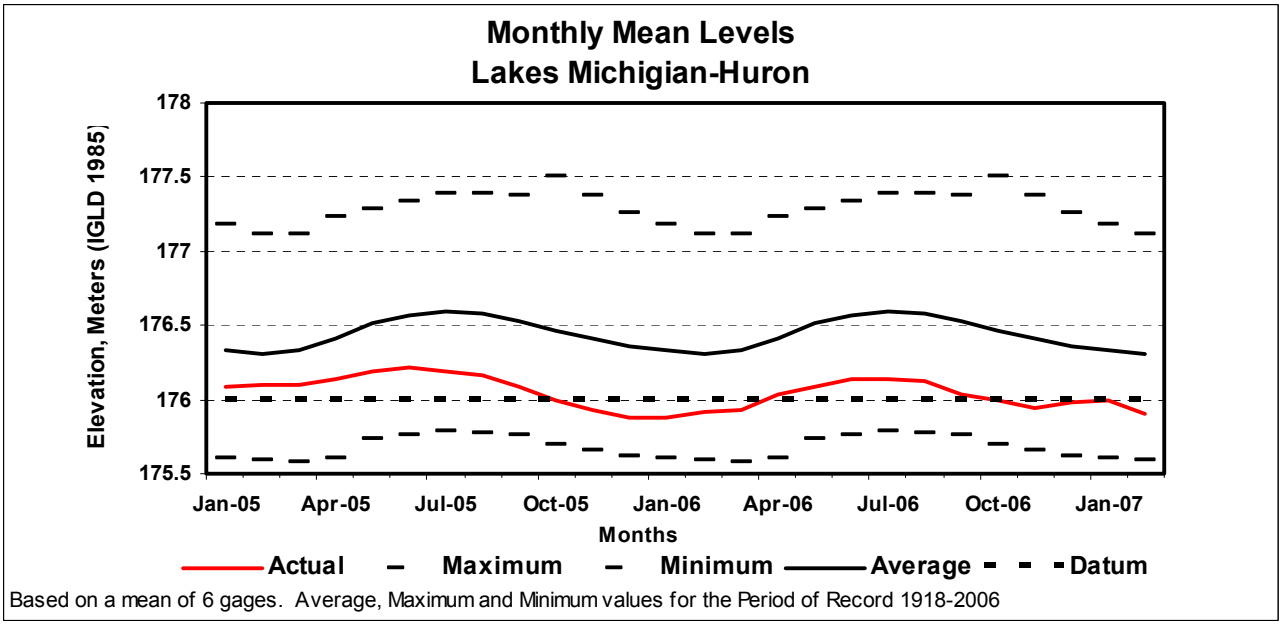
Respectfully submitted,

BG Bruce A. Berwick
Member for United States

Carr McLeod
Member for Canada

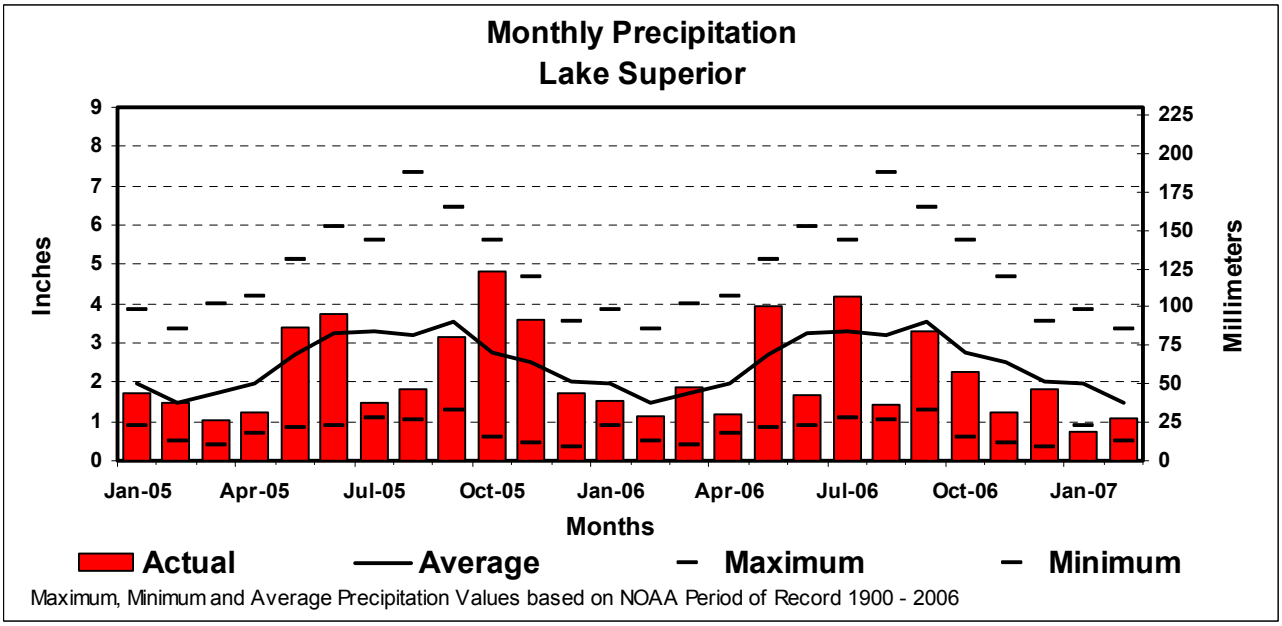


Based on a mean of 5 gages. Average, Maximum and Minimum values for the Period of Record 1918-2006

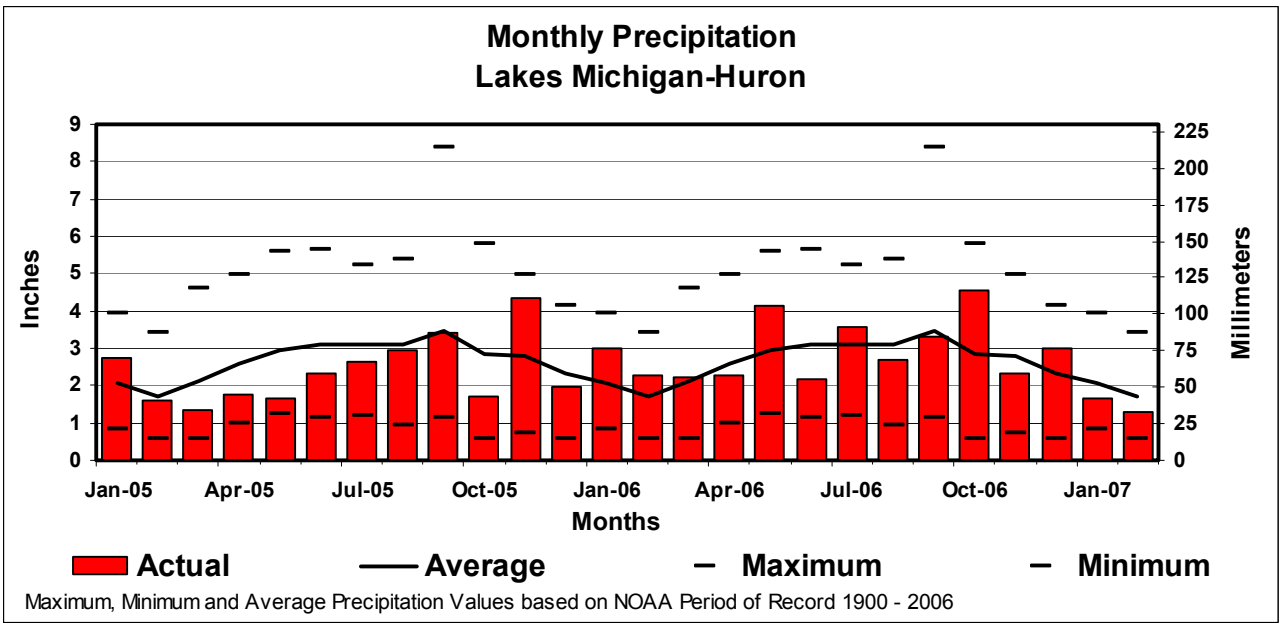


Based on a mean of 6 gages. Average, Maximum and Minimum values for the Period of Record 1918-2006

Figure 1

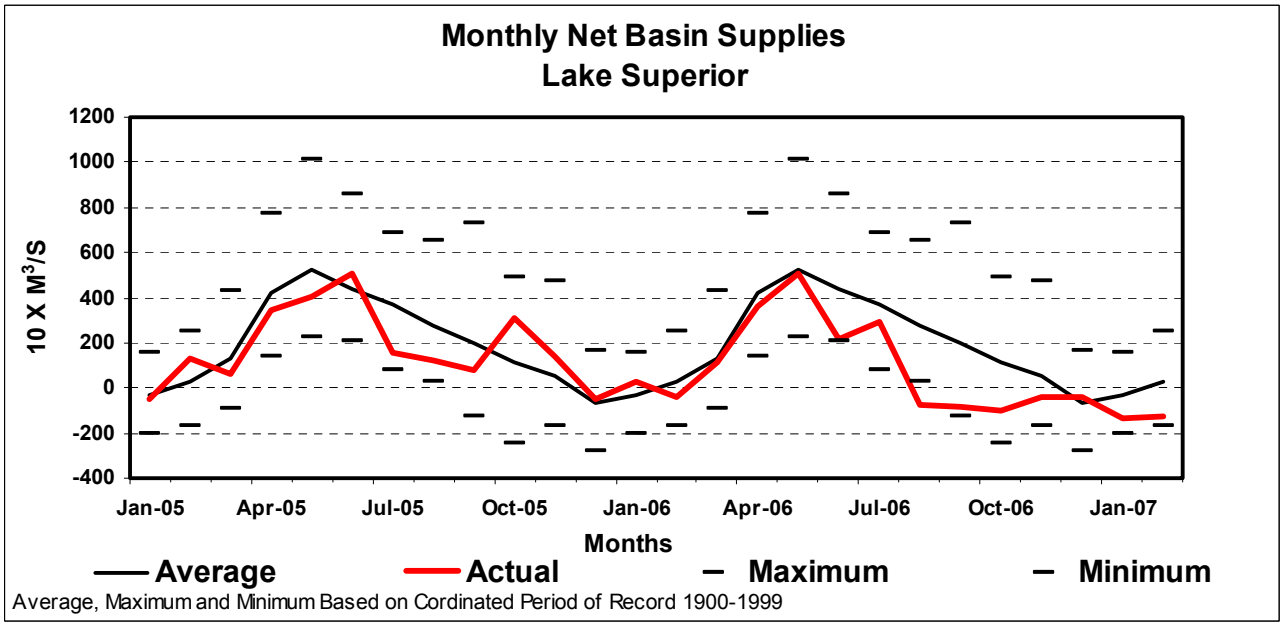


Maximum, Minimum and Average Precipitation Values based on NOAA Period of Record 1900 - 2006



Maximum, Minimum and Average Precipitation Values based on NOAA Period of Record 1900 - 2006

Figure 2


Monthly Net Basin Supplies
Lake Superior
10 X M3/S
1200
1000
800
600
400
200
0
-200
-400
Jan-05
Apr-05
Jul-05
Oct-05
Jan-06
Apr-06
Jul-06
Oct-06
Jan-07
Months
Average
Actual
Maximum
Minimum
Average, Maximum and Minimum Based on Cordinated Period of Record 1900-1999

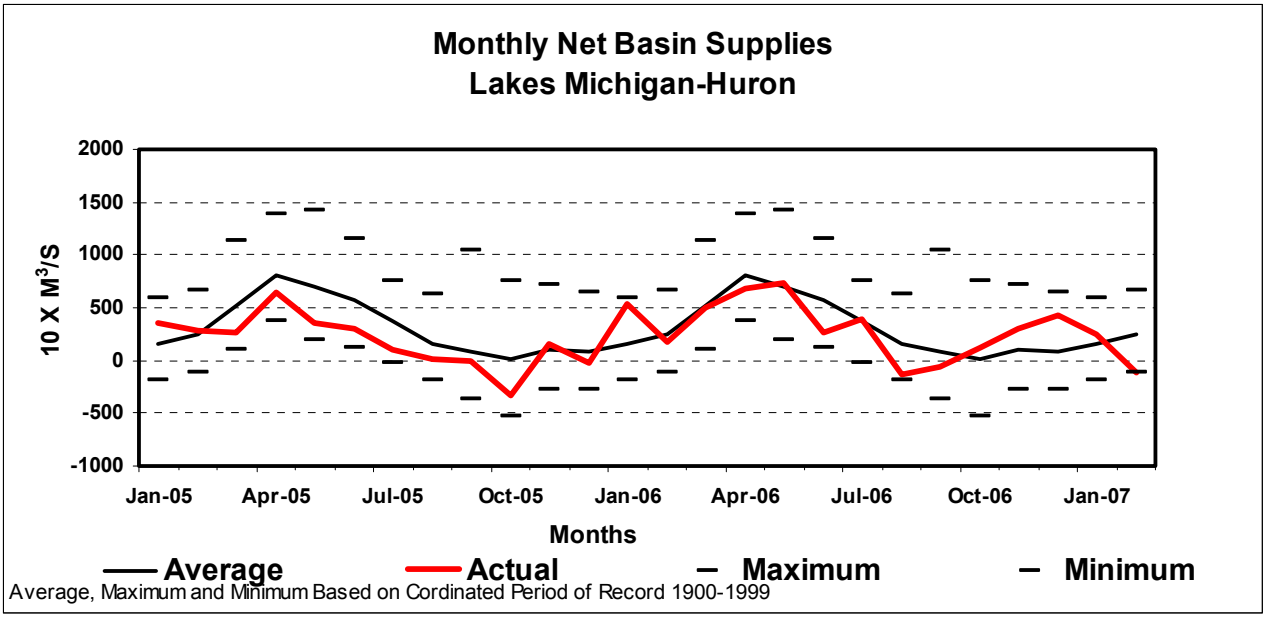
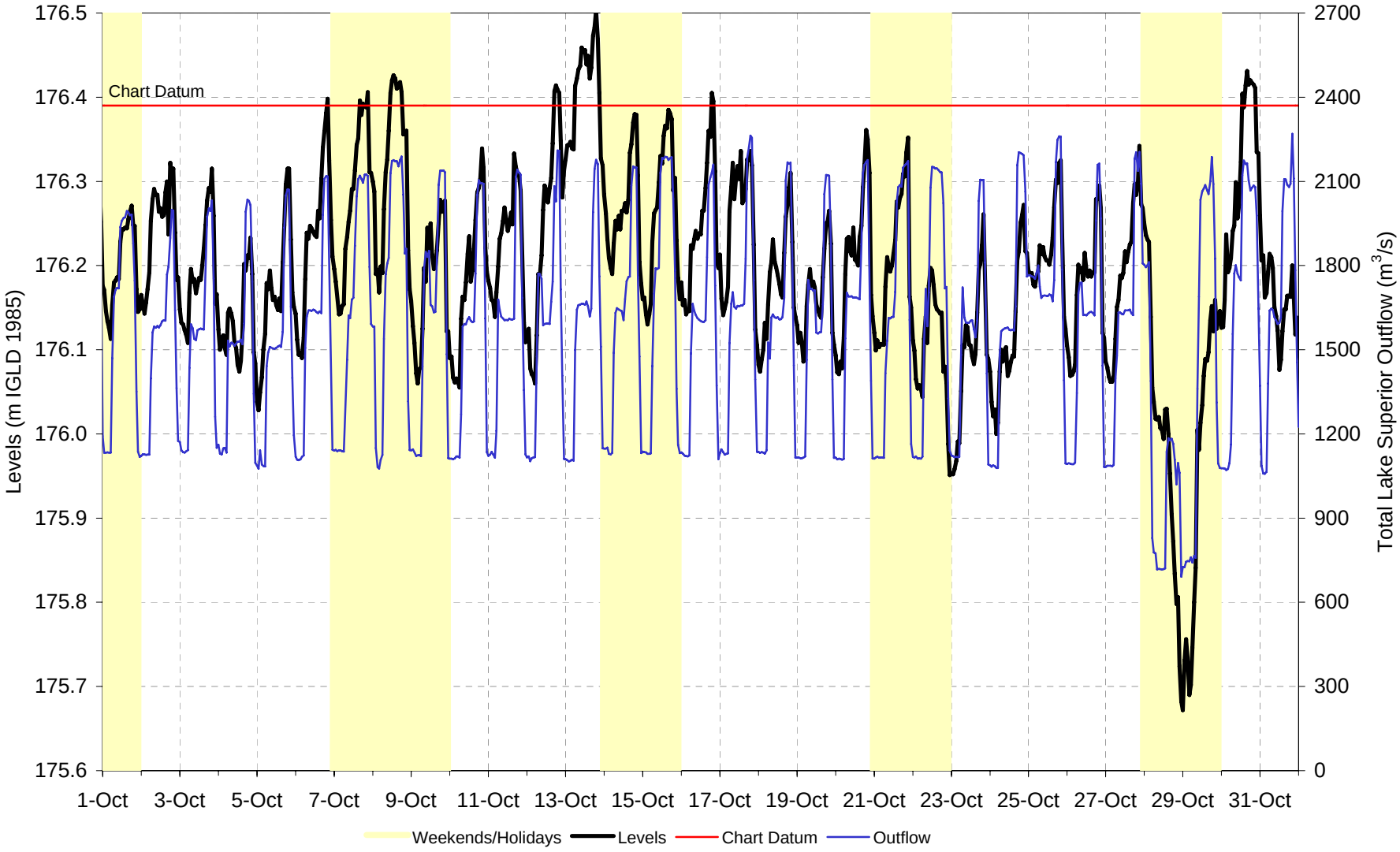
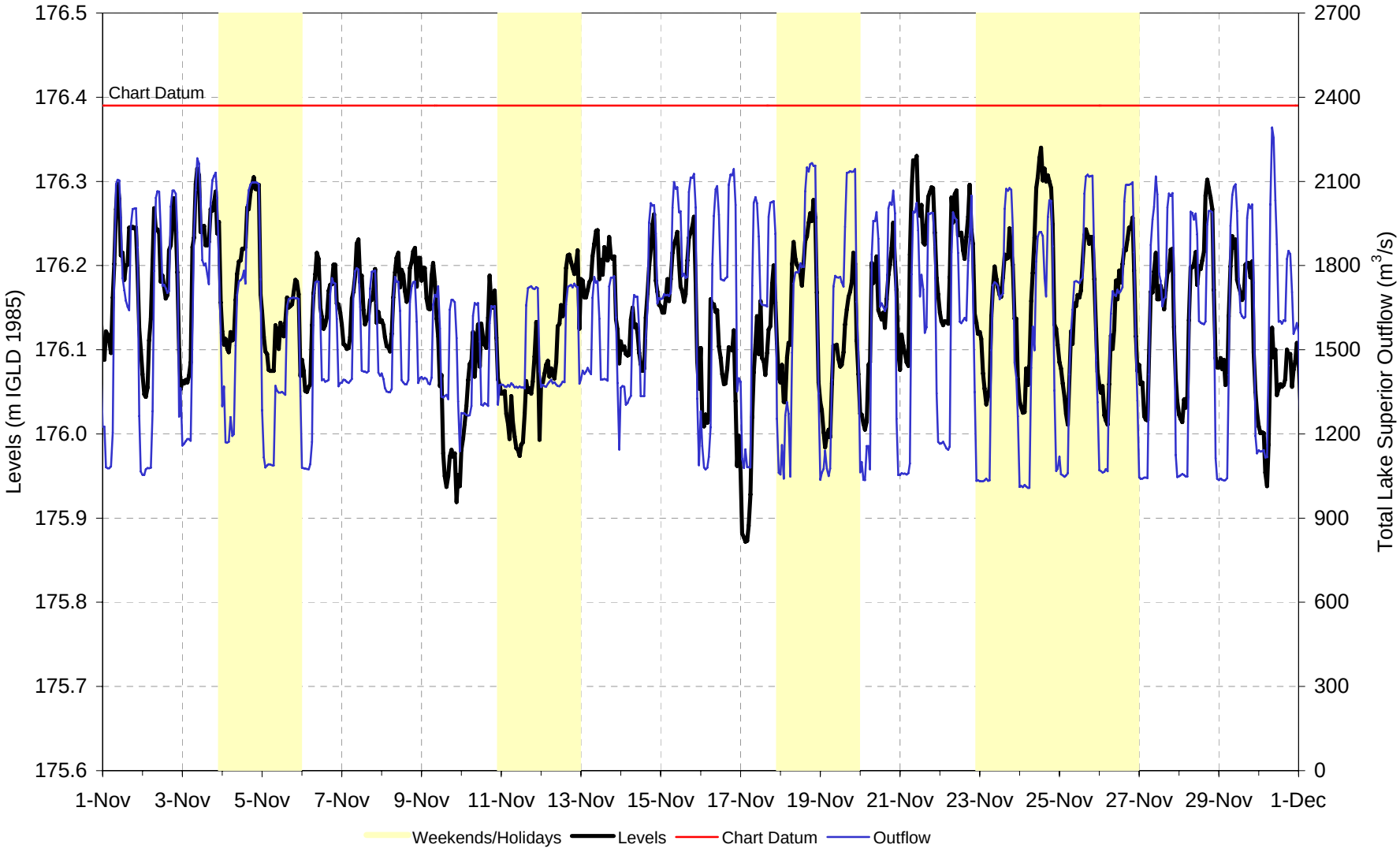

Monthly Net Basin Supplies
Lakes Michigan-Huron
10 X M3/S
2000
1500
1000
500
0
-500
-1000
Jan-05
Apr-05
Jul-05
Oct-05
Jan-06
Apr-06
Jul-06
Oct-06
Jan-07
Months
Average
Actual
Maximum
Minimum
Average, Maximum and Minimum Based on Cordinated Period of Record 1900-1999

Figure 3

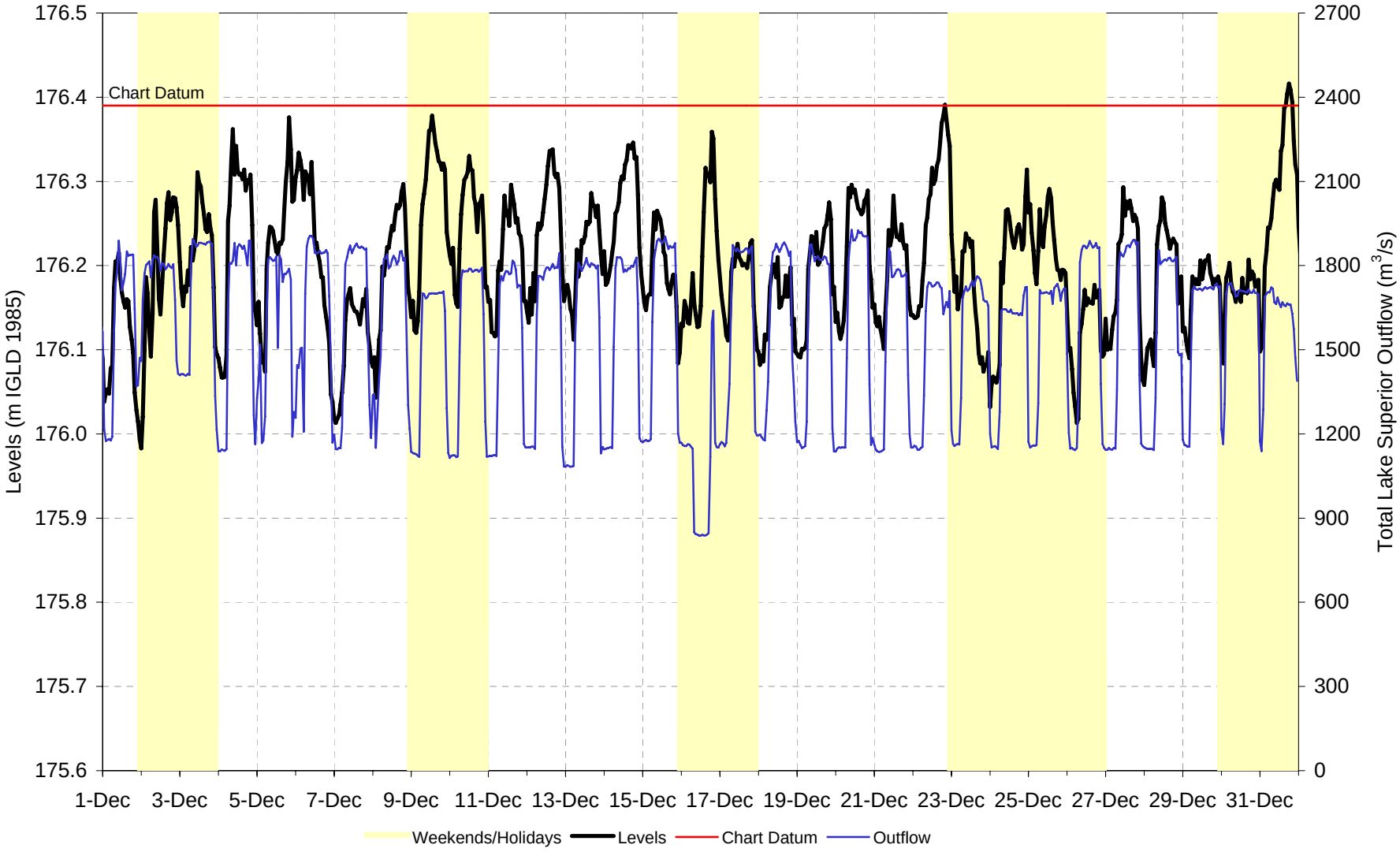
Hourly U.S. Slip Levels & Lake Superior Outflows
Figure 4a - October 2006



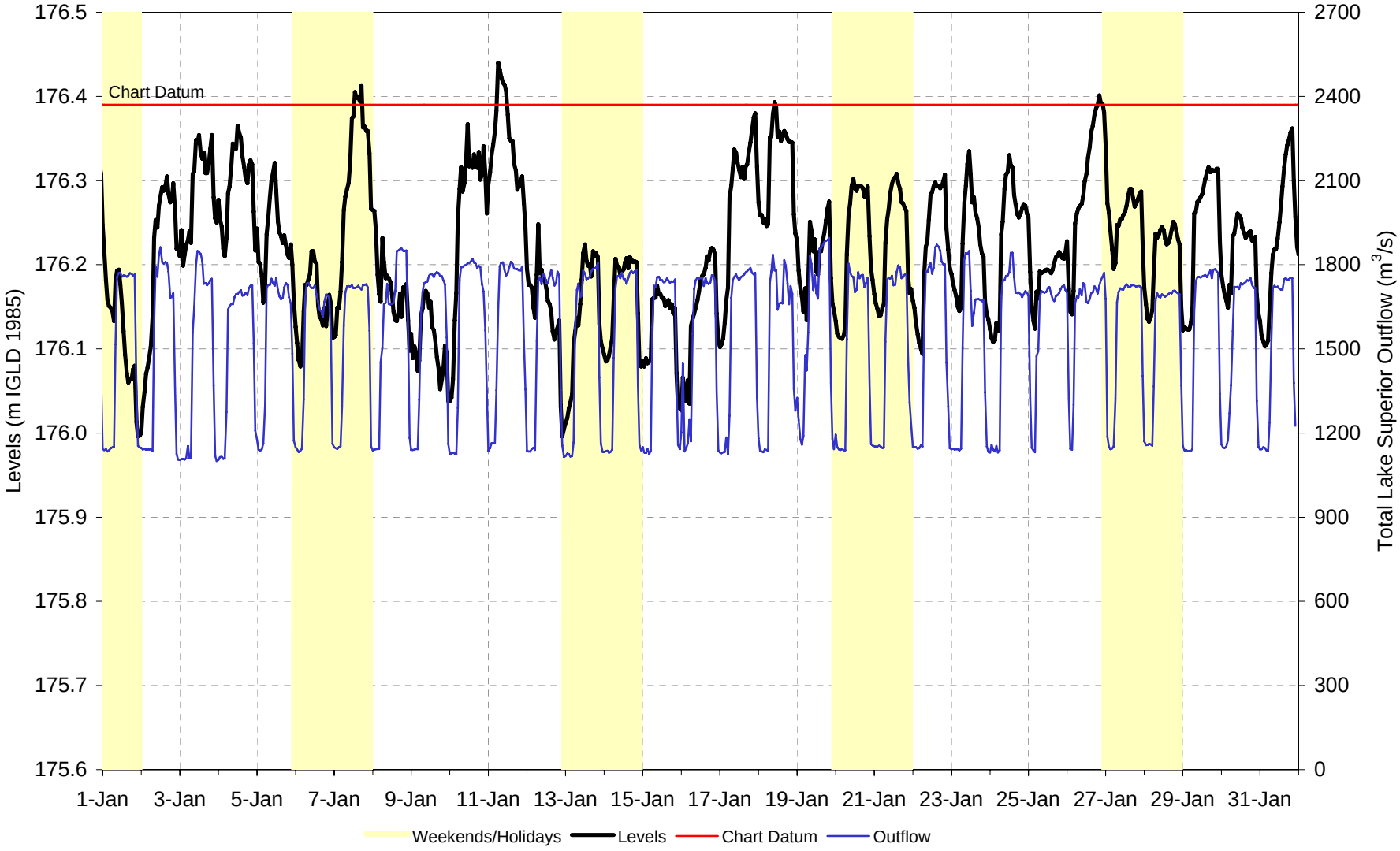
Hourly U.S. Slip Levels & Lake Superior Outflows
Figure 4b - November 2006



Hourly U.S. Slip Levels & Lake Superior Outflows
Figure 4c - December 2006



Hourly U.S. Slip Levels & Lake Superior Outflows
Figure 4d - January 2007



Hourly U.S. Slip Levels & Lake Superior Outflows
Figure 4e - February 2007

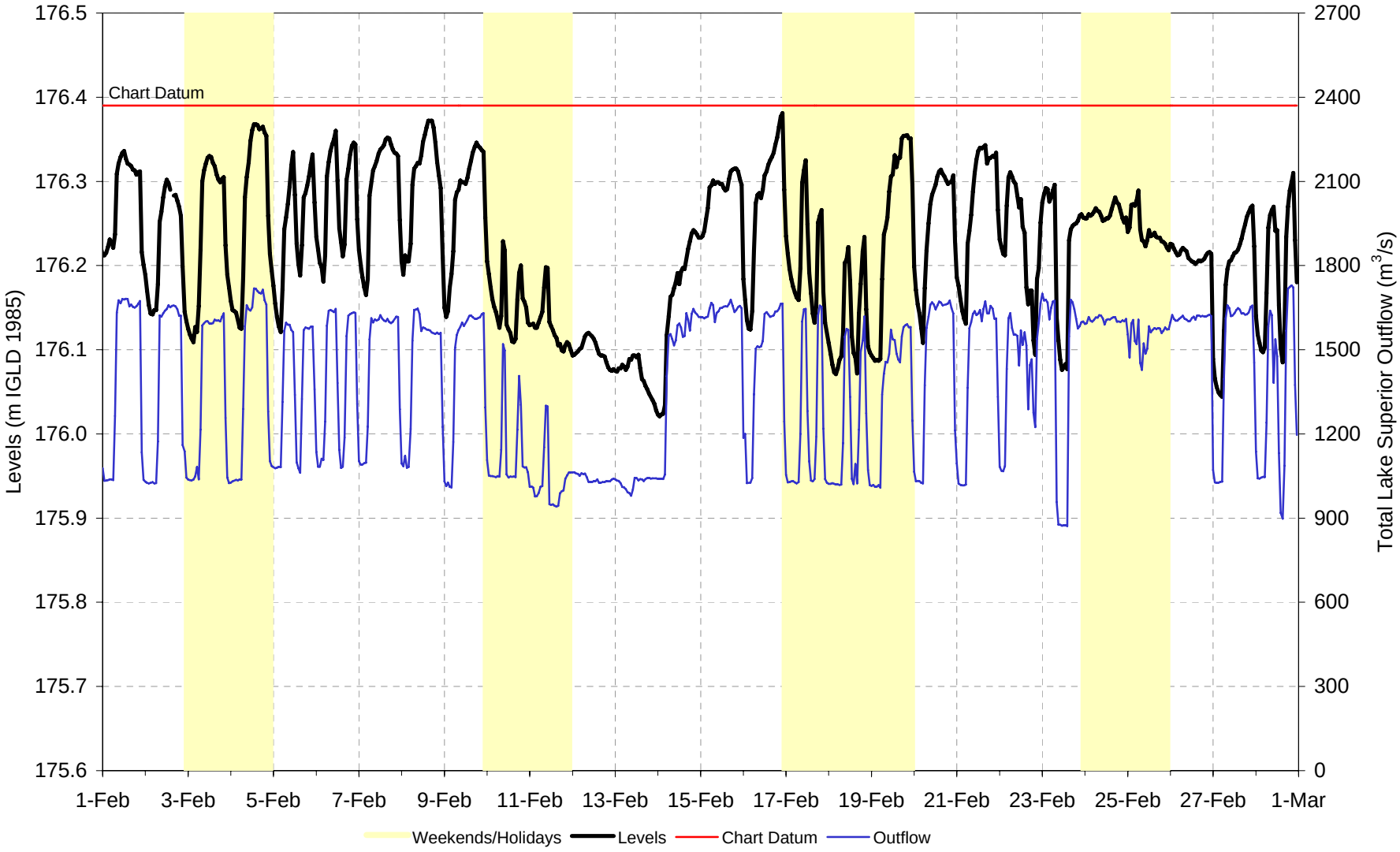


TABLE 1
2006 - 2007 Lake Superior Hydrologic Factors

Month	Levels				Net Basin Supplies			Outflows		
	Monthly Mean Recorded[1]		Difference From Average[2]		Monthly Mean Recorded		Exceedance Probability	Monthly Mean Recorded		Percent of
	meters	feet	meters	feet	m3/s	tcfs	(%)	m3/s	tcfs	Average[3]
Jan-06	183.24	601.18	-0.10	-0.33	270	10	18	1970	70	101
Feb-06	183.18	600.98	-0.10	-0.33	-380	-13	80	1940	69	102
Mar-06	183.12	600.79	-0.13	-0.43	1120	40	53	1840	65	98
Apr-06	183.16	600.92	-0.11	-0.36	3640	129	64	1890	67	97
May-06	183.24	601.18	-0.13	-0.43	5040	178	52	1910	67	90
Jun-06	183.30	601.38	-0.16	-0.52	2170	77	95	2150	76	98
Jul-06	183.31	601.41	-0.21	-0.69	2900	102	74	2140	76	94
Aug-06	183.30	601.38	-0.25	-0.82	-750	-26	>>99**	2180	77	92
Sep-06	183.20	601.05	-0.35	-1.15	-810	-29	98	1770	63	75
Oct-06	183.13	600.82	-0.39	-1.28	-1000	-35	95	1570	55	68
Nov-06	183.04	600.52	-0.44	-1.44	-370	-13	75	1570	55	69
Dec-06	182.98	600.33	-0.43	-1.41	-370	-13	37	1570	55	76
Jan-07	182.92	600.13	-0.42	-1.38	-1360	-48	93	1540	54	79
Feb-07	182.83	599.84	-0.45	-1.48	-1220	-43	98	1360	48	71

Notes: m^3/s = cubic meters per second tcfs = 1000 cubic feet per second

[1] Water Levels are a mean of five gauges on Lake Superior, IGLD 1985

[2] Average levels are for period 1918-2006, based on a mean of five gauges. Differences computed as meters and then converted to feet.

[3] Average flows and exceedance probabilities are based on a period of record 1900 - 1999

** New record low supply

TABLE 2

2006 - 2007 Lakes Michigan-Huron Hydrologic Factors

Month	Levels				Net Basin Supplies			Outflows		
	Monthly Mean Recorded[1]		Difference From Average[2]		Monthly Mean Recorded		Exceedance Probability	Monthly Mean Recorded		Percent of
	meters	feet	meters	feet	m^3/s	tcfs	(%)	m^3/s	tcfs	Average[3]
Jan-06	175.88	577.03	-0.44	-1.44	5280	186	1	4480	158	99
Feb-06	175.92	577.17	-0.39	-1.28	1780	63	68	4520	160	102
Mar-06	175.93	577.20	-0.39	-1.28	4970	176	52	4490	159	93
Apr-06	176.01	577.46	-0.40	-1.31	6860	242	67	4640	164	90
May-06	176.09	577.72	-0.41	-1.35	7340	259	42	4690	166	87
Jun-06	176.14	577.89	-0.43	-1.41	2690	95	96	4750	168	87
Jul-06	176.14	577.89	-0.46	-1.51	4000	141	39	4710	166	85
Aug-06	176.13	577.85	-0.45	-1.48	-1390	-49	96	4720	167	85
Sep-06	176.04	577.56	-0.49	-1.61	-680	-24	77	4570	161	83
Oct-06	175.99	577.40	-0.47	-1.54	1290	46	23	4560	161	84
Nov-06	175.94	577.23	-0.46	-1.51	3040	107	16	4520	160	84
Dec-06	175.98	577.36	-0.38	-1.25	4310	152	4	4450	157	86
Jan-07	176.00	577.43	-0.32	-1.05	2520	89	27	4420	156	98
Feb-07	175.91	577.13	-0.40	-1.31	-1140	-40	>>99	3700	131	84

Notes: m^3/s = cubic meters per second tcfs = 1000 cubic feet per second

[1] Water Levels are a mean of six gauges on Lakes Michigan-Huron, IGLD 1985

[2] Average levels are for period 1918-2006, based on a mean of six gauges. Differences computed as meters and then converted to feet.

[3] Average flows and exceedance probabilities are based on a period of record 1900-1999.

TABLE 3

MONTHLY DISTRIBUTION OF LAKE SUPERIOR OUTFLOWS (cubic meters /second)

		POWER CANALS				NAVIGATION CANALS			DOMESTIC USAGE					
Year and Month	US Govern't Hydro.	Edison Sault Electric	US Total	Great Lakes Power	Total Power Canals	United States	Canada	Total Navigation Canals	Sault Ste. Marie US+Can.	Algoma Steel	St. Marys Paper	Total Domestic Usage	Fishery St. Marys Rapids	Total Lake Superior Outflow m^3/s
Jan-06	400	464	864	985	1849	5.7	0	6	0.3	9.4	0.3	10	101	1966
Feb-06	391	467	858	972	1830	2.8	0	3	0.3	9.1	0.3	10	100	1943
Mar-06	399	453	852	875	1727	4.5	0	4	0.3	9.2	0.3	10	99	1840
Apr-06	393	436	829	938	1767	11.1	0	11	0.3	9.6	0.3	10	99	1887
May-06	364	563	927	858	1785	12.5	0.3	13	0.3	10.1	0.3	11	101	1910
Jun-06	393	578	971	1050	2021	13.4	1.8	15	0.4	10.3	0.3	11	106	2153
Jul-06	400	611	1011	1005	2016	14.4	2	16	0.4	8.5	0.3	9	102	2143
Aug-06	382	643	1025	1031	2056	14	2.1	16	0.3	8.8	0.3	9	102	2183
Sep-06	389	434	823	824	1647	13.3	1.3	15	0.3	10.7	0.3	11	100	1773
Oct-06	396	328	724	721	1445	11.4	0.5	12	0.3	10.5	0.3	11	100	1568
Nov-06	395	333	728	725	1453	10.4	0	10	0.2	10.3	0.3	11	99	1573
Dec-06	395	330	725	726	1451	10.3	0	10	0.2	9.5	0.3	10	98	1569
Jan-07	398	320	718	710	1428	5	0	5	0.2	9.4	0.3	10	97	1540
Feb-07	296	319	615	643	1258	2.1	0	2	0.2	8	0.3	8	96	1364

TABLE 4
MONTHLY DISTRIBUTION OF LAKE SUPERIOR OUTFLOWS (cubic feet / second)

		POWER CANALS				NAVIGATION CANALS			DOMESTIC USAGE					Total Lake Superior Outflow m^3/s
Year and Month	US Govern't Hydro.	Edison Sault Electric	US Total	Great Lakes Power	Total Power Canals	United States	Canada	Total Navigation Canals	Sault Ste. Marie US+Can.	Algoma Steel	St. Marys Paper	Total Domestic Usage	Fishery St. Marys Rapids	
Jan-06	14100	16400	30500	34800	65300	201	0	201	11	332	11	354	3570	69400
Feb-06	13800	16500	30300	34300	64600	99	0	99	11	321	11	343	3530	68600
Mar-06	14100	16000	30100	30900	61000	159	0	159	11	325	11	347	3500	65000
Apr-06	13900	15400	29300	33100	62400	392	0	392	11	339	11	361	3500	66700
May-06	12900	19900	32800	30300	63100	441	11	452	11	357	11	379	3570	67500
Jun-06	13900	20400	34300	37100	71400	473	64	537	14	364	11	389	3740	76100
Jul-06	14100	21600	35700	35500	71200	509	71	580	14	300	11	325	3600	75700
Aug-06	13500	22700	36200	36400	72600	494	74	568	11	311	11	333	3600	77100
Sep-06	13700	15300	29000	29100	58100	470	46	516	11	378	11	400	3530	62500
Oct-06	14000	11600	25600	25500	51100	403	18	421	11	371	11	393	3530	55400
Nov-06	13900	11800	25700	25600	51300	367	0	367	7	364	11	382	3500	55500
Dec-06	13900	11700	25600	25600	51200	364	0	364	7	335	11	353	3460	55400
Jan-07	14100	11300	25400	25100	50500	177	0	177	7	332	11	350	3430	54500
Feb-07	10500	11300	21800	22700	44500	74	0	74	7	283	11	301	3390	48300

NOTES 1. Flows for individual users were originally coordinated in m3/s, and are converted here to U.S. customary units (cfs) and rounded to 3 significant figures. Total flow for each category and total Lake Superior flow in this table are computed from the individual flows in cfs.